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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/738,766	12/18/2000	Norman R. Pelton	P398 0001	4845

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EXAMINER

VALENTI, ANDREA M

ART UNIT PAPER NUMBER

3643

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/738,766

Applicant(s)

PELTON, NORMAN R.

Examiner

Andrea M. Valenti

Art Unit

3643

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10, 12-14, 22-25 and 27-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10, 12-14, 22-25 and 27-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date: _____

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 30 and 31, applicant has stated 'after between 6 and 12 weeks' it is unclear to the examiner what range applicant intends to claim. The examiner for examining purposes has understood this to mean after 6 and 12 weeks it is ejected, which could be 10 weeks or 8 months, i.e. any time after the range of 6 -12 weeks. The prior art of record (Arnold) teaches 16.5 weeks and thus teaches this limitation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbondsnieuws vol. 43 (20): English abstract, Dutch 1999, one

page in view of U.S. Patent No. 3,990,180 to Bunting; U.S. Patent No. 4,333,265 to Arnold; and U.S. Patent Des. 325,714 to Karhiniemi.

Regarding Claims 6 and 27-29, Van der Knaap's trademark product Fibre Neth teaches a network of thermal-sensitive fibre used as a plant growing medium. Van der Knaap's does not explicitly state a cylindrical plug of growing medium including a tree seedling with roots. However, Bunting teaches that it is old and notoriously well-known in the art to provide trees and young plants with a plant substrate plug medium (Bunting Col. 1 line 5-13) and inherently teaches a coniferous tree. It would have been obvious to one of ordinary skill in the art to shape the growing medium of Van der Knaap's into a seedling plug since the modification is merely the selection of a known material for intended use selected for its known hydration characteristics. Van der Knaap is silent on how the plug is manufactured. However, Bunting teaches that it is old and notoriously well-known in the art to manufacture plugs using thermal heat-treatment for its polymerization effects (Bunting Col. 2 line 40-55 and claim 9). It would have been obvious to one of ordinary skill in the art to modify the teachings of Van der Knaap since the modification is merely the selection of a known manufacturing procedure selected for desired known polymerization end results to enhance root expansion through the plug.

Van der Knaap as modified is silent on a hollow cell. However, Karhiniemi teaches a tray for growing seedlings in which the application of the tray inherently performs the conventional method of forming a seedling plug by filling a hollow cell with a growing medium planting a tree seed in the hollow cell; germinating the seed into a

seedling and nurturing the seedling to provide root development; after sufficient root development the of the seedling, ejecting the seedling and growing medium to form a plug (Karhiniemi Fig. 1-5). It would have been obvious to one of ordinary skill in the art to modify the teachings of Van der Knaap with the teachings of Karhiniemi as an ergonomically efficient means of transporting multiple plugs at one time.

Van der Knaap as modified is silent on the age of the seedling being 6.5 months or less. However, Arnold teaches that it is accepted wisdom in the field that seedlings under conventional methods reach an acceptable size at 6 months (Arnold. Col. 10 line 8) and Arnold teaches packing the tree seedling for use in re-planting (Arnold Col. 10 line 14). It would have been obvious to one of ordinary skill in the art to modify the teachings at the time of the invention with the accepted conventional time frame for planting to achieve a desired survival rate and a cost efficient means of transport to final application.

Claims 8, 9, 12-14, 22-25, 30 and 31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbondsnieuws vol. 43 (20): English abstract, Dutch 1999, one page in view of U.S. Patent No. 3,990,180 to Bunting; U.S. Patent No. 4,333,265 to Arnold; and U.S. Patent Des. 325,714 to Karhiniemi as applied to claim 6 above, and further in view of U.S. Patent No. 5,331,908 to Loeb.

Regarding Claims 8, 9, 30 and 31, Karhiniemi as modified is silent on transplanting the first cylindrical plug into a hollow cell with a growing medium wherein

the growing medium has a network of thermal-sensitive fibre; after sufficient root development of the seedling, ejecting the seedling and growing medium to form the seedling plug. However, Loeb teaches that method of transplanting a first plug into a second plug (Loeb Col. 4). It would have been obvious to one of ordinary skill in the art to modify the conventional plug method applicable to Karhiniemi to include a second plug layer of thermal-sensitive fibre since this modification is merely a duplication of steps that perform the same intended function of promoting the growth and development of the seedling. It is old and well-known in the art of plant propagation to increase the size of the root containment area as the seedling grows and also to provide additional nutrient properties and protection to the plant root system.

Regarding Claim 12, Karhiniemi as modified by Loeb teaches that the second growing medium can also be a loose growing soil mixture of peat moss and sawdust (Loeb Col. 1 line 45-48).

Regarding Claims 13, 22, and 24, Karhiniemi as modified teaches the growing medium has a network of Fibre-neth formed by filling a tray of hollow cells with the growing medium, but is silent on dipping the tray in a bath of hot water at a temperature of approximately 89 degrees Celsius, and then dipping the tray in a bath of water at tap water temperature, 5 to 10 degrees Celsius. However, it would have been obvious to one of ordinary skill in the art to dip the growing medium in hot water, approximately 89 degrees Celsius, since heat treatment is an old and well-known means to kill unwanted bacteria and micro-organisms and cooling the tray with tap water brings the soil temperature back to a level favorable for growing conditions.

Regarding Claims 14, 23, and 25, Karhiniemi as modified is silent on alternatively cascading water onto the tray to heat and cool the growing medium. However, it would have been obvious to one of ordinary skill in the art to apply cascading water to the growing seedlings since is an old and well-known method of humidity control in plant husbandry.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbondsnieuws vol. 43 (20): English abstract, Dutch 1999, one page in view of U.S. Patent No. 3,990,180 to Bunting; U.S. Patent No. 4,333,265 to Arnold; U.S. Patent Des. 325,714 to Karhiniemi; and U.S. Patent No. 5,331,908 to Loeb as applied to claim 8 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claim 10, Van der Knaap as modified teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the production of Fibre Neth in order to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbondsnieuws vol. 43 (20): English abstract, Dutch 1999, one page in view of U.S. Patent No. 3,990,180 to Bunting; U.S. Patent No. 4,333,265 to Arnold; and U.S. Patent Des. 325,714 to Karhiniemi as applied to claim 6 above, and further in view of U.S. Patent No. 5,942,029 to Spittle.

Regarding Claim 7, Van der Knaap as modified teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the production of Fibre Neth in order to obtain the required absorbent properties for the growing medium to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van der Knaap B.V. Fibre Neth and Substrate Research for Roses: Evaluation of Different Types of Coir, Verbondsnieuws vol. 43 (20): English abstract, Dutch 1999, one page in view of U.S. Patent No. 3,990,180 to Bunting; U.S. Patent No. 4,333,265 to Arnold; U.S. Patent Des. 325,714 to Karhiniemi and U.S. Patent No. 5,331,908 to Loeb

as applied to claims 8 and 9 above, and further in view of U.S. Patent No. 5,942,029 to

Spittle.

Regarding Claims 32 and 33, Van der Knaap as modified teaches that the growing medium Fibre Neth has a loose growing soil mixture consisting of coconut coir and thermal-sensitive fibre, but is silent on the percentage by weight of each component. However, Spittle teaches a plant mulch mixture consisting of approximately 95% by weight natural fiber (i.e. coconut coir fibre) and 5% by weight of crimped synthetic fibers (i.e. thermal-sensitive fibre) (Spittle Col. 2 line 22-37). It would have been obvious to one of ordinary skill in the art to apply the teachings of Spittle to the production of Fibre Neth in order to obtain the required absorbent properties for the growing medium to provide long-lasting even hydration of the seed and seedling to maximize germination and plant growth rate as taught by Spittle (Spittle Col. 2 lines 43-52).

Response to Arguments

Applicant's arguments with respect to claims 6-10, 12-14, and 22-25, and 27-33 have been considered but are moot in view of the new ground(s) of rejection.

Examiner maintains that teachings of the prior art presented in the above paragraphs teach all the method steps presented by applicant.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Application/Control Number: 09/738,766
Art Unit: 3643

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

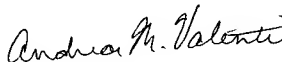
CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

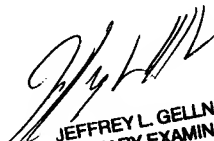
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 703-305-3010. The examiner can normally be reached on 7:30am-5pm M-F; Alternating Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Andrea M. Valenti
Examiner
Art Unit 3643

24 November 2004


JEFFREY L. GELLNER
PRIMARY EXAMINER

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